

28. A gaseous composition comprising at least one precursor of a metal oxide and an accelerant selected from the group consisting of organic phosphites, organic borates, and water.

29. The gaseous composition of claim 28, wherein at least one precursor for a metal oxide is selected from the group consisting of compounds of tin, germanium, titanium, aluminum, zirconium, zinc, indium, cadmium, hafnium, tungsten, vanadium, chromium, molybdenum, iridium, nickel, and tantalum.

30. The gaseous composition of claim 28, further comprising a precursor for a silicon oxide.

31. A gaseous composition comprising a metal oxide precursor and an accelerant selected from the group consisting of phosphites, borates, water, alkyl phosphine, arsine and borane derivatives, PH_3 , AsH_3 , B_2H_6 , O_2 , N_2O , NF_3 , NO_2 and CO_2 .

32. The gaseous composition of claim 31, wherein the metal oxide precursor is a precursor of metal oxides selected from the group consisting of tin oxide, germanium oxide, titanium oxide, aluminum oxide, zirconium oxide, zinc oxide, indium oxide, cadmium oxide, hafnium oxide, tungsten oxide,

vanadium oxide, chromium oxide, molybdenum oxide, iridium oxide, nickel oxide, and tantalum oxide.

33. A film comprising one or more metal oxides and an accelerant.

34. The film of claim 33, wherein said metal oxide is selected from the group of tin oxide, germanium oxide, titanium oxide, aluminum oxide, zirconium oxide, zinc oxide, indium oxide, cadmium oxide, hafnium oxide, tungsten oxide, vanadium oxide, chromium oxide, molybdenum oxide, iridium oxide, nickel oxide, and tantalum oxide.

35. The film of claim 33, wherein said accelerant is selected from the group consisting of phosphites, borates, water, alkyl phosphine, arsine and borane derivatives, PH_3 , AsH_3 , B_2H_6 , O_2 , N_2O , NF_3 , NO_2 and CO_2 .

36. The film of claim 33, wherein said accelerant is triethylphosphite.

37. The film of claim 33, further comprising a silicon oxide.

38. The film of claim 33, wherein said film is amorphous.

39. An article comprising a substrate and a film of claim 33 deposited thereon.

40. An article comprising a substrate and a film of claim 34 deposited thereon.

41. An article comprising a substrate and a film of claim 35 deposited thereon.

42. An article comprising a substrate and a film of claim 36 deposited thereon.

43. An article comprising a substrate and a film of claim 37 deposited thereon.

44. An article comprising a substrate and a film of claim 38 deposited thereon.

45. An article of claim 39, wherein the substrate is glass.

46. An article of claim 39, wherein the film has a refractive index which changes continuously.

47. An article of claim 39, wherein the film comprises a plurality of layers.

48. An article of claim 47, wherein each layer contains a mixture of tin and silicon oxides.

49. An article of claim 48, wherein each layer contains a concentration of tin oxide and silicon oxide different from an adjacent layer.